

Work Order ID 98417-2

98417

March-12-13 1:54:43 PM

Page 1

Item ID: D6101-003 Accept *N9000040100* Setup Start *NS1*
 Revision ID: Stop *NS2*
 Item Name: Saddle Billet, 7075
 Start Date: 3/11/13 Start Qty: 50.00 *50* split
 Required Date: 3/29/13 Req'd Qty: 50.00 *50* 22x
 Reference: Cust Item ID:
 Customer:

Approvals: Process Plan: MJS Date: 130313 Tooling: Date: Run Start *NR1*
 QC: Date: SPC (Y/N): Date: Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
D6101	Rev B

100	PURCHASING	0.00
100		
Purchasing	Memo	0.00
Purchasing	Issue P/O: 19369	
	a) Description: Alluminum billet	
	b) 7.875" x 6.250" x 2.00" thick	
	c) Tolerance on all dimensions are +0.030"/-0.000"	
	d) Grain direction along 7.875" length	
	e) Material: 7075-T7351 (QQ-A-250/12)	
	f) Material certification required	

CL 13/03/19 (50)

110	Receive & Inspect for Damage & Mat'l Certs	0.00
110		
Packaging	Memo	0.00
Packaging	Ensure material certification is attached	

22x

50
13-4-11

Work Order ID 98417

March-12-13 1:54:43 PM

98417

Page 2

Item ID: D6101-003 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Saddle Billet, 7075
 Start Date: 3/11/13 Start Qty: 50.00 ***50*** Cust Item ID:
 Required Date: 3/29/13 Req'd Qty: 50.00 ***50*** Customer:
 Reference:

Approvals: Process Plan: Date: Tooling: Date: Run Start ***NR1***
 QC: Date: SPC (Y/N): Date: Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120 *120* QC Quality Control	QC6- Inspect dimensions to drawing Memo Ensure Material certification comply to Dwg D6101	0.00 0.00				22	Ø		DAS 08 2-89
130 *130* Packaging Packaging	Identify as per dwg & Stock Location: <u>MAT 42</u> Memo	0.00 0.00				22	Ø		DAS 08 2-89
140 *140* QC Quality Control	QC21- Final Inspection - Work Order Release Memo	0.00 0.00							

13/4/12
 13/4/13

Picklist Print

March-12-13 1:54:43 PM

Page 1

Work Order ID: 98417

Parent Item: D6101-003

Start Date: 3/11/13

Required Date: 3/29/13

Parent Item Name: Saddle Billet, 7075

Start Qty: 50.00

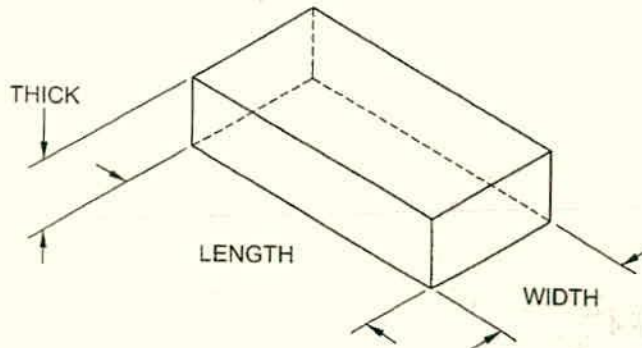
Required Qty: 50.00

Comments: IPP A: 01.05.04New IssueEC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D6101-003P 7075-T7351 2X6.25X7.875		Purchased	No			110	Each	0.0000	1	50			

22x SPB-4-11

SPECIFICATION CONTROL DRAWING



PURCHASE MATERIAL ACCORDING TO THE FOLLOWING TABLE. SPECIFY ALLOY, LENGTH x WIDTH x THICK (+0.030/-0.000), AND GRAIN DIRECTION AS SHOWN.

TOLERANCES ON ALL DIMENSIONS ARE +0.030/-0.000.

ALL DIMENSIONS ARE IN INCHES.

B ACCEPTABLE SPECIFICATIONS FOR 7075-T7351 ALUMINUM ARE AMS-QQ-A-250/12, QQ-A-250/12, OR ASTM B209

Part No.	Alloy	Length	Width	Thick	Grain Direction
D6101-001	7075-T7351 (QQ-A-250/12)	6.000	6.250	2.000	Along 6.000 Length
D6101-003	7075-T7351 (QQ-A-250/12)	7.875	6.250	2.000	Along 7.875 Length
D6101-005	7075-T7351 (QQ-A-250/12)	5.000	8.250	2.500	Along 5.000 Length
D6101-007	7075-T7351 (QQ-A-250/12)	7.750	8.250	2.500	Along 7.750 Length
D6101-009	7075-T7351 (QQ-A-250/12)	8.700	8.250	2.500	Along 8.700 Length
D6101-011	7075-T7351 (QQ-A-250/12)	9.700	8.250	2.500	Along 9.700 Length
D6101-013	7075-T7351 (QQ-A-250/12)	10.100	8.250	2.500	Along 10.10 Length
D6101-015	7075-T7351 (QQ-A-250/12)	9.450	6.250	2.500	Along 9.450 Length
D6101-017	7075-T7351 (QQ-A-250/12)	6.350	6.250	2.250	Along 6.350 Length

RELEASED
09/07/15/W

98417 MLS
13-03-13

B	ADDED D6101-015/-017, ADD ASTM B209	RF	09.04.23
A	NEW ISSUE	CP	01.03.20
REV.	DESCRIPTION	BY	DATE
DESIGN	CP	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. B
MFG. APPR.	<i>[Signature]</i>	D6101	SHEET 1 OF 1
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	SADDLE BILLET, 7075	NTS
DATE	09.04.23	<small>COPYRIGHT © 2001 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	

**Castle Metals®**

A. M. Castle & Co.

**PACKING SLIP/
CERTIFICATE OF CONFORMANCE**

Page 1 of 1

Shipment No:1709042

Ship From: A. M. Castle & Co. MONTREAL - CASTLE METALS 835-SELKIRK AVENUE POINTE CLAIRE, QUEBEC H9R 3S2		Sold To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA		Ship To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CAN		Deliver To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA	
Date Shipped	F.O.B.	Freight Terms		Carrier		BOL No	
10-APR-2013	ORIGIN	Prepaid		MANITOULIN		1709042-2	

Shipment Details	Final Destination Branch - MON
-------------------------	---------------------------------------

Order No 2768918	Line No 2	Item No 752237.MO	Description 2.0000.PL 7075.T7351 ALUMINUM.US1.48.5000.144.5000 CUT 2SIDED TO 6.25 IN (+ .0310/- .0000 IN (GRAIN TO RUN ALONG 7.875")) X 7.875 IN (+ .0310/- .0000 IN (GRAIN TO RUN ALONG 7.875")) - ALUMINUM PLATE SAW SPECIFICATIONS: QQ-A-250/12				
Purchase Order No 19369		Part Number YOUR ITEM NUMBER: D6101-003		Ordered Qty 22.00 PCS		Invoice Qty 22.00 PCS	
Details		END USER: DART AEROSPACE END USE: COMMERCIAL AIRCRAFT PARTS ECCN # EAR99					
Delivery No.	Mill	Heat Number	Mech Id	PCS	Width (IN)	Length (IN)	Shipped Qty(LBS)
118563292	KAISER ALUMINUM	752319A4		20			203.2169
118563292	KAISER ALUMINUM	752319A4		2			20.3217

These commodities/technologies are subject to US Export Administration & US State Dept. Regulations and, if intended for export, were/are exported thereunder. Diversion contrary to US Law is Prohibited.

We hereby certify the material covered by this certification conforms in accordance with the above specifications and has been found to meet the applicable requirements for the material, including any specifications forming a part of the description. Test reports are on file subject to examination. All claims for defective material are waived unless made in writing to A.M. Castle & Co. within 60 days of the shipment. Material cut to the correct size, or material cut by the customer cannot be returned for credit.

Reviewed by Authorized Castle Metals Representative:

Date:

Name:

These commodities, technology or software were exported from the United States in accordance with the Export Administration Regulations. Diversion contrary to US law prohibited.
Date Printed: 10-APR-2013 01:35:53 PM

6137373870

613-737-33870

09:49:52 a.m.

04-11-2013

2/10

SHIP TO:

CASTLE METALS AEROSPACE
14400 SO FIGUEROA
GARDENA, CA 90248

KAISER ALUMINUM

Trentwood Works - Spokane, WA 99215

Phone: (800) 367-2586

CERTIFIED TEST REPORT

Serial Number

4286828

SOLD TO:

AM CASTLE & CO- SOLD TO
1420 KENSINGTON RD
SUITE 220
OAK BROOK, IL 60523

CUSTOMER PO NUMBER: 199871		WORK PACKAGE:		CUSTOMER PART NUMBER: 752237		SHIP RUN/LOAD: 102525/22		GOV'T CONTRACT NUMBER:	
KAISER ORDER NO: 1144735	LINE ITEM: 1	SHIP DATE: 14-JAN-2013	ALLOY: 7075	CLAD: BARE	TEMPER: T7351	PRODUCT DESCRIPTION: Kaiser Select® Plate			
WEIGHT SHIPPED: 7216 LB	QUANTITY: 5 PCS EST.	TRUCK B/L #: 2040546	GAUGE: 2.0000 IN (50.8000 MM)		DIAMETER/WIDTH: 48.500 IN (1231.9 MM)		LENGTH: 144.500 IN (3670.3 MM)		

MHU 1647743: LOT 622099A0: 1 pieces;
MHU 1647746: LOT 752319A4: 3 pieces;
MHU 1651903: LOT 752831A8: 1 pieces;

Certified Specifications

AMS 4078/RevJ

ASTM B 209/Rev10

BSS 7055/RevA

DPS 4.713/RevAH

MMS 159/RevT

AMS-QQ-A-250/12

ASTM B 594/Rev09

CMMP 025/RevU

GAMPS 9101/RevB

PS 21211/RevL

AMS-STD-2154/Rev98

BAC 5439/RevH

CSTI 006/RevD

GSS16100/RevG/Amd1

Test Code: 4297

Test Results

Lot: 622099A0 Cast 505

Drop 23

Ingot 4

Melted in USA

(ASTM E8/B557)

(EN 2002-1)

Tensile:	Temper	Dir / # Tests	Ultimate KSI (MPA)	Yield KSI (MPA)	Elongation %
	T7351	LT / 2 (Min:Max)	72.2 : 72.2 (498 : 498)	60.4 : 60.9 (416 : 420)	12.6 : 13.1

(ASTM E1004)

(EN 2004-1)

Conductivity %IACS :	42.1 Min	42.1 Max
(MS/M) :	24.4 Min	24.4 Max

(ASTM E1251)

Chemistry:	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER
Actual(wt%)	0.07	0.16	1.4	0.02	2.5	0.19	6.0	0.03	0.01	0.01	TOT 0.05



JAN 18 2013

Page 1 of 3

KAISER ALUMINUM

Trentwood Works - Spokane, WA 99215
Phone: (800) 367-2586

CERTIFIED TEST REPORT

Serial Number
4286828

Lot: 752319A4 Cast 500 Drop 10 Ingot 2 Parent Lot: 616295A2 Melted in USA

(ASTM E8/B557)
(EN 2002-1)

Tensile:	Temper	Dir / # Tests	Ultimate KSI (MPA)	Yield KSI (MPA)	Elongation %
	T7351	LT / 2 (Min:Max)	71.1 : 71.4 (490 : 492)	60.2 : 60.5 (415 : 417)	11.9 : 12.1

(ASTM E1004)
(EN 2004-1)

Conductivity %IACS :	41.9 Min	42.0 Max
(MS/M) :	24.3 Min	24.4 Max

(ASTM E1251)

Chemistry:	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER
Actual(wt%)	0.09	0.21	1.4	0.04	2.5	0.20	5.9	0.03	0.01	0.01	TOT 0.05

Lot: 752831A8 Cast 509 Drop 10 Ingot 4 Parent Lot: 620261A8 Melted in USA

(ASTM E8/B557)
(EN 2002-1)

Tensile:	Temper	Dir / # Tests	Ultimate KSI (MPA)	Yield KSI (MPA)	Elongation %
	T7351	LT / 2 (Min:Max)	73.2 : 73.2 (505 : 505)	62.4 : 62.7 (430 : 432)	12.2 : 12.7

(ASTM E1004)
(EN 2004-1)

Conductivity %IACS :	41.6 Min	41.8 Max
(MS/M) :	24.1 Min	24.2 Max

(ASTM E1251)

Chemistry:	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER
Actual(wt%)	0.07	0.17	1.4	0.06	2.5	0.19	5.6	0.03	0.01	0.01	TOT 0.05

ALLOY LIMITS

	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER	MAX
7075												
MIN(wt%)	0.00	0.00	1.2	0.00	2.1	0.18	5.1	0.00	0.00	0.00	EACH	0.05
MAX(wt%)	0.40	0.50	2.0	0.30	2.9	0.28	6.1	0.20	0.05	0.05	TOT	0.15

Aluminum Remainder

TEST NOTES

Metal represented by this test report was 100% immersion ultrasonically tested from one side with 3mm dead zones top and bottom and meets the Class A and Class B requirements of all specifications referenced on this test report. No surface marking of sonic indications is performed.



KAISER ALUMINUM

Trentwood Works - Spokane, WA 99215
Phone: (800) 367-2586

CERTIFIED TEST REPORT

Serial Number
4286828



CERTIFICATION

Kaiser Aluminum Fabricated Products, LLC (Kaiser) hereby certifies that metal shipped under this order was melted in the United States of America or a qualifying country per DFARS 225.872-1(a), was manufactured in the United States of America, and meets the requirements of DFARS 252.225 for domestic content. This material has been inspected, tested and found in conformance with the requirements of the applicable specifications as indicated herein. For material thicknesses outside specification limits, mechanical properties are as shown herein and chemical composition meets specification requirements. All metal which is solution heat treated complies with AMS 2772. Any warranty is limited to that shown on Kaiser's standard general terms and conditions of sale. Test reports are on file, subject to examination. Test reports shall not be reproduced except in full, without the written approval of Kaiser Aluminum Fabricated Products, LLC laboratory. The recording of false, fictitious or fraudulent statements or entries on the certificate may be punished as a felony under federal law. ISO-9001:2000 certified.

James Hemmenway

JAMES HEMENWAY, LABORATORIES SUPERVISOR

Page 3 of 3

5/10 P. 18

09:50:37 a.m. 04-11-2013 310 527-0185

613-737-33870 TRANSSTAR MIS

Jan 18 13 10:59a

6137373870



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO19369

Purchase Order Date 3/19/13

PO Print Date 3/19/13

Page Number 1 of 2

Order From :

VC-MET001

METAUX CASTLE
A.M. CASTLE & CO. (CANADA) INC. - C/O 910720
P.O. BOX 4090 STN A
TORONTO, ON M5W 0E9
CA

Contact Name

Vendor Phone

514 694 9575

Vendor Fax

514 695 3281

Vendor Account Nbr

Buyer

Chantal Lavoie

Requisition Nbr

Tax Resale Nbr

10127-2607

Terms

Net 30

Currency

CAD

FOB

Destination-Collect

M125079

Ship To :

DART AEROSPACE LTD 1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

FAKED
Q13/03/19

Line Nbr	Reference Revision ID Vendor Part Number	Description/ Mfg ID	Req Date/ Taxable	Req Qty/ Unit of Measure	Ship Method	Unit Price	Extended Price
1	M4130NS063	4130 Sheet .063	3/29/13 Yes	36.00 sf	Yours ppd	\$10.1667	\$366.00
		Spec: Ins: MATERIAL: AISI 4130N STEEL SHEET AS PER MIL-S-18729 OR AMS 6350 OR AMS 6351 OR AS PER AMS 6345					
2	D6101-001P	7075-T7351 2X6X6.25	3/29/13 Yes	50.00 Each	Yours ppd	\$36.0000	\$1,800.00
		Spec: test: As per Dwg: D6101 Rev: B B98456 Aluminum billet: 6.00"x6.250"x2.00"thick Tolerance on length are +0.030/-0.000"/E+/- 0.008" Grain Direction along 6.00" length Mat: 7075-T7351 (QQ-A-250/12)					
3	D6101-003P	7075-T7351 2X6	3/29/13 Yes	50.00 Each	Yours ppd	\$48.0000	\$2,400.00

recu 29 recu 21X
SP13-4-11 SP13-4-5

recu 28v
SP13-4-5

No substitution or deviation without
consent.

Certificate of Conformity or Material
Certification required YES NO

Change Nbr:

1

Change Date: 3/19/13